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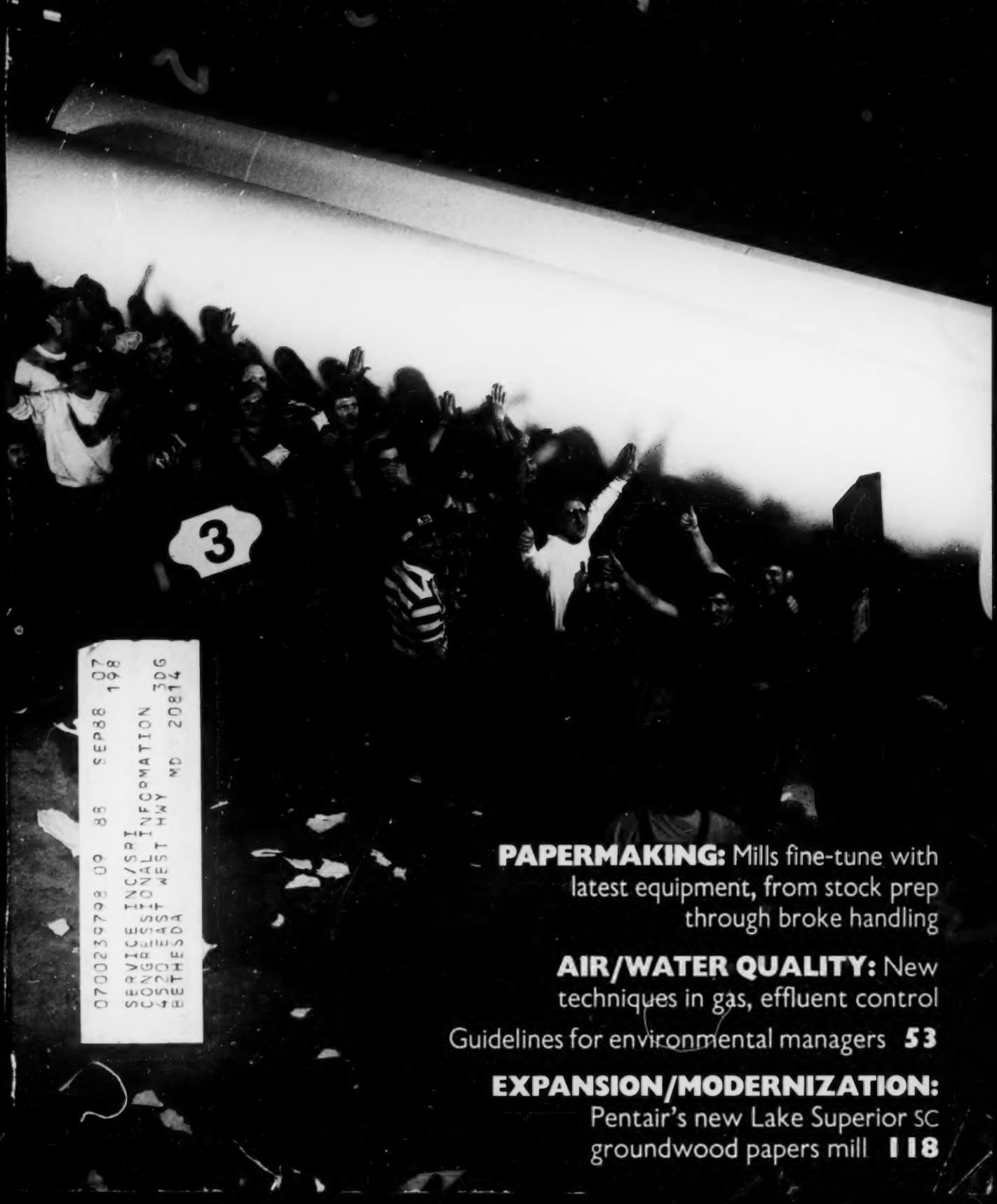
PULP & PAPER

April 1988



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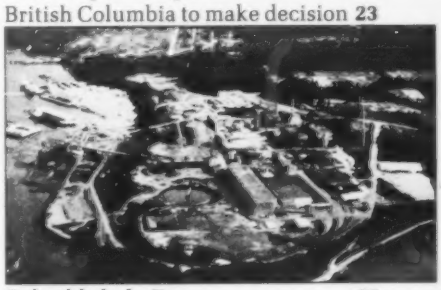

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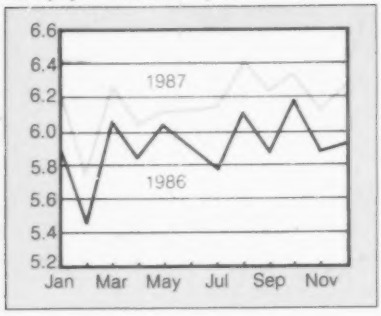
U.S. paper and board production



U.S. production of paper and paperboard totaled 6.4 million tons in January, a record for the month and an increase of 3.2% over a year earlier, according to American Paper Institute figures. Preliminary data for February showed the strong production trend evident in 1987 continuing into the new year. On a seasonally adjusted basis, the January production rate stood just under 75.0 million tpy, up from 74.5 million tpy for 1987. Paperboard continued to out-perform paper, with production up 4.1% on a seasonally adjusted basis vs a 3.0% increase for paper.

Among major grades, printing and writing papers continued to lead the way, as coated paper shipments shot up 11.6% from the previous year and uncoated free-sheet rose 5.8%. Uncoated groundwood was off 9.6% from January 1987, however. Paperboard was led by containerboard, where linerboard production climbed 5.6% and corrugating medium 4.4%. Exports of unbleached kraft linerboard finished 1987 up 7.4% from 1986.

Canadian newsprint shipments dipped 4.4% in January to 716,000 metric tons. Canadian woodpulp shipments totaled 612,000 tons, down 0.2% from a year earlier. Operating rates stood at 99% for newsprint and 97% for woodpulp. ■

	Latest month (000 short tons)	% change from year ago	Annualized year-to-date (000 short tons)	% change from year ago
PAPER & PAPERBOARD PRODUCTION[1]				
Newsprint	Jan. 499	1.8	5,983	1.7
Uncoated groundwood (s)	Jan. 122	-9.6	1,462	-9.4
Coated paper (s)	Jan. 634	11.6	7,604	11.6
Uncoated free sheet (s)	Jan. 929	5.8	11,142	6.1
Other printing/writing	Jan. 121	6.1	1,444	5.7
Total packaging and other paper (s)	Jan. 436	-4.8	5,227	-5.3
Tissue	Jan. 436	-0.7	5,228	-0.6
Total paper	**Jan. 3,174**	**3.0**	**38,091**	**3.0**
Unbleached kraft paperboard	Jan. 1,638	6.0	19,654	6.0
Semichemical medium	Jan. 488	1.5	5,860	1.3
Bleached paperboard	Jan. 381	-0.3	4,571	-0.3
Recycled paperboard	Jan. 744	1.2	8,922	3.8
Total paperboard	**Jan. 3,251**	**3.4**	**39,006**	**4.1**
Total U.S. paper and paperboard output	**Jan. 6,425**	**3.2**	**77,098**	**3.2**
PULP, WASTEPAPER & FIBER[2]				
Total U.S. woodpulp production	Dec. 5,160	4.8	59,582	4.5
Market pulp production	Dec. 723	4.2	8,128	7.2
Wastepaper consumption at paper/board mills	Dec. 1,489	5.8	18,348	6.5
Pulpwood consumption (cords)	Dec. 8,162	4.7	93,946	2.7
CONVERTED PRODUCTS STATISTICS[3]				
Corrugated box shipments (billion ft²)	Jan. 24.782	-0.0	24.782[6]	-0.0
Containerboard inventories at U.S. box plants and mills	Jan. 1 2.486	6.2		
INTERNATIONAL TRADE[2]				
U.S. paper imports (including products)	Dec. 1,010	21.2	12,454	7.4
Imports of Canadian newsprint	Dec. 669	15.7	8,588[6]	3.9
U.S. paper exports (including products)	Dec. 460	3.1	5,197	13.2
Exports of unbleached kraft linerboard	Dec. 187	-11.4	2,194	7.4
Exports of woodpulp	Dec. 527	28.9	4,889	9.7
Norscan pulp inventories[4]	Jan. 30 915	-7.8		
Norscan pulp operating rates[4]	Jan. 101%	99%	96%	98%
CANADIAN STATISTICS[5] *(reported in metric tons)*				
Total newsprint shipments	Jan. 716	-4.4	716[6]	-4.4
Operating rates	Jan. 99%	97%	99%	97%
Inventories held by U.S. consumers	Jan. 30 1,427	7.8		
Other paper/board shipments	Jan. 521	-0.2	521	-0.2
Woodpulp shipments (export only)	Jan. 612	-0.2	612	-0.2
Operating rates	Jan. 97%	98%	97%	98%

1. American Paper Institute. 2. API, Bureau of Census, American Pulpwood Assn. 3. Fibre Box Assn., Paperboard Packaging Council. 4. North American/Scandinavian paper-grade market pulp. 5. Canadian Pulp & Paper Assn. 6. Not annualized. (s) = Shipments.

Uncoated free-sheet: Prices remain healthy; strong demand should continue through first half of 1988

Grade structure: Uncoated free-sheet papers contain no more than 10% mechanical pulp, with the balance being chemical woodpulp. Excluded are uncoated groundwood, cotton fiber, bristols, and thin papers. Major end uses include office papers (bond, forms bond, reprographic, tablet, and envelope), printing papers (offset, cover and text), and miscellaneous (such as technical, papeterie, or colored school).

Production/capacity: Rising demand for office papers continues to push up production of uncoated free-sheet grades at U.S. mills, which grew 5.5% in 1987 from a year earlier. This is a slower, but still healthy growth following the higher 7.7% increase in 1986.

Likewise, capacity also grew, though more slowly, rising 4.5% in 1987, according to the American Paper Institute. API expects about half that growth in 1988. The single new machine brought online in 1987 was at Domtar Inc.'s Windsor, Que., mill. This 230,000-metric-tpy machine will be joined by a similar unit in early 1989. The U.S. capacity gains came through advancements in the learning curves on machines brought up in 1986, including Hammermill Paper Co.'s Riverdale mill in Selma, Ala., Georgia-Pacific Corp.'s Port Hudson, La., mill, and a converted Stress Kraft machine in Pensacola, Fla. Other mills also gained capacity through upgrades and rebuilds in 1987.

In addition to Domtar's second Windsor machine, 1989 startups include Great Lakes Forest Products, Dryden, Ont. (170,000-metric-tpy), and G-P's second 290,000-short-tpy machine at Port Hudson. In addition, International Paper Co. and its Hammermill unit will increase capacity 200,000 tpy through speedups and rebuilds, and Mohawk Paper will add 15,000 to 20,000 tpy at its Cohoes and Waterford, N.Y., mills.

Outlook: Operating rates at uncoated free-sheet mills are expected to remain between 93% and 95% in 1988, with most analysts predicting two- or three-percentage-point declines in 1989, primarily due to an expected economic recession that could begin sometime in the second half of 1988, or more probably, they say, in the beginning of 1989.

Demand will remain relatively strong through the first half of this year because of inventory building in response to announcements of price increases that took effect in the first quarter. Customers expressed some worry about tonnage availability due to labor problems at various mills, particularly IP's Androscoggin mill in Jay, Maine, and the Hammermill units at Erie and Lock Haven, Pa. Also, there were reportedly startup problems at Domtar's Windsor mill which, added to IP's problems, caused a severe shortage of forms bond in Canada by February. Some forms converters even contacted competitors in an attempt to get stock.

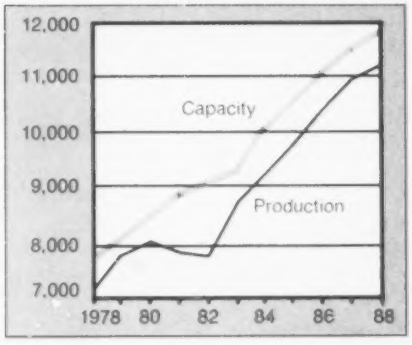
Imports are expected to advance slightly in 1988 from 1987, but not as much as in 1989, when uncoated free-sheet imports could rise over 35%, compared with an estimated 10% in 1988. Prices may rise again before the third quarter, although most analysts expect mills to hold prices at those levels.

Pricing: All grades of uncoated free-sheet paper underwent price increases in 1987 and at the beginning of 1988. These increases brought the significant grades of paper—forms bond and offset—to levels at or near their highs of 1984. The market was experiencing some slight softening, but most buyers and sellers expected the latest increases to hold and paper to sell near list prices.

Price trends for two important grades (year-end, $/short ton) are as follows for book paper, No. 3 offset, 45-lb sheets: 1981, $878; 1982, $680; 1983, $840; 1984, $880; 1985, $800; 1986, $850; 1987, $850; 1988 (1Q), $870 to $890. Forms bond, 15-lb rolls: 1981, $753; 1982, $640; 1983, $745; 1984, $680; 1985, $600; 1986, $620; 1987, $760; 1988 (1Q), $780 to $800.

Markets: Bond, mimeo, duplicating, reprographic—24%; forms—21%; offset printing—25%; envelope—11%; tablet, 4%; carbonless—6%; other—9%. ■

SUPPLY/DEMAND (000 tons)



FORECAST (000 tons)

	1986	1987	1988e
Production[1]	10,410	10,983	11,049
Capacity[2]	11,023	11,520	11,780
Utilization rate	94.4%	95.3%	93.8%
Imports	454	410e	447
Exports	50	67e	84
Apparent U.S. consumption	10,814	11,326	11,412
lb/capita	89.80	93.19	93.04
GNP ratio	5.82	2.96	2.95

e = Estimate
1. *P&P* estimate
2. American Paper Institute

TOP U.S. PRODUCERS (000 tpy)

	Annual capacity	Market share (%)
1. International Paper[1]	2,250	19.1
2. Champion Intl.	1,714	14.6
3. Boise Cascade	910	7.7
4. Georgia-Pacific	900	7.6
5. James River[2]	850	7.2
6. Great Northern[3]	830	7.0
7. Union Camp[4]	750	6.4
8. Weyerhaeuser	620	5.3
9. Mead[5]	475	4.0
10. P.H. Glatfelter	400	3.4

Market share of top five companies:
56.2%

Market share of top ten companies:
82.3%

Total U.S. capacity (1988):
11,780 million tons

1. Includes hammermill and bristols
2. *P&P* estimate
3. Nekoosa Papers
4. Includes carbonless basestock
5. Does not include 75,000 to 95,000 tpy at Ecusta Corp.

SALES & EARNINGS

Canadian industry profits nearly doubled 1986 levels

Tight markets and record production for market pulp and newsprint, the two main exports of the Canadian forest products industry, translated into profits that were close to twice the 1986 level. Earnings in 1987 increased 94.3%, while sales rose 16.8%. Producers were helped by the weakness of the Canadian dollar in relation to most European currencies, although some strengthening against the U.S. dollar was a negative factor. However, most industry executives continue to remain optimistic about prospects for 1988.

MacMillan Bloedel Ltd. enjoyed both record sales and earnings in 1987. Sales for the year exceeded the $3-billion mark for the first time in the company's history. Its operating earnings more than doubled to reach $465.8 million. The company reported that the earnings would have been even better if British Columbia had not instituted its new stumpage system. MacMillan Bloedel reported that it expects its pulp and paper mills to continue to operate at the same capacity levels that were achieved during 1987.

Abitibi-Price Inc.'s earnings increased 17%, while sales were up 8%. Bernd K. Koken, chairman and CEO, attributed this increase to strong newsprint prices as well as to the fact that the company's mills operated at capacity. Koken said that the unfavorable exchange rate from selling newsprint in the U.S. cut into profits, noting that the average value of the U.S. dollar in Canadian terms declined 4.6% from 1986. Koken is optimistic about the company's prospects for 1988, commenting that "newsprint markets will be at their best, and we expect a solid turnaround in the groundwood papers and coated papers segments."

Domtar Inc., which recorded an 11% increase in earnings, reported that while operating profits for pulp, newsprint, and groundwood specialty papers improved signficantly over 1986 levels, earnings from the fine paper segment declined. The company attributed this decline to the reduction in operations at the old Windsor, Que., mill in preparation for the startup of a new uncoated free-sheet paper machine.

Consolidated-Bathurst Inc. said its preliminary earnings before extraordinary items reached a new record of $181.5 million—a 75% improvement over 1986 earnings. Con-Bath attributed the good showing to strong results at its Bridgewater Div. in the U.K. and also to higher shipments and better prices in newsprint, market pulp, and containerboard. President T.O. Stangeland described the company's outlook for 1988 as "quite positive."

British Columbia Forest Products Ltd. enjoyed record sales and earnings in 1987. Last year was the first time BCFP's earnings exceeded $100 million during its 40-year history and is the best result it has had since 1979. The company said that its mills operated at capacity in the fourth quarter and that current market conditions for most forest products are expected to continue throughout the first quarter.

Like BCFP, Canfor Corp.'s net income exceeded $100 million for the first time and represented an increase of $79 million over 1986. Canfor said that profits would have been even better without the export charge on lumber, which cost it about $23 million. Crown Forest Industries Ltd.'s earnings were almost twice as large as its previous best profit in 1979. Sales broke the $1-billion barrier for the first time.

Repap Enterprises Corp.'s earnings were almost four times larger in 1987 than 1986. Nonintegrated Rolland Inc. was one of the few companies to see earnings fall in 1987. The company said that its Fine Papers Div. was adversely affected by rising raw material costs, which could not be matched by corresponding increases in selling prices. ■

Canadian paper industry results.

	Full year 1987 (C$000)			
Paper companies	**Sales**	**% change 1986/87**	**Earnings[1]**	**% change 1986/87**
Abitibi-Price Inc.	$2,988,000	8.1%	[illegible]25,700	17.1%
B.C. Forest Products	1,400,000	27.3	140,200	248.8
Canfor Corp.	1,244,900	18.9	102,700	333.3
Cascades Inc.	527,732	19.9	34,148[2]	1.1
Consolidated-Bathurst Inc.	2,261,000	12.0	214,400[2]	334.0
Crown Forest Industries Ltd.	1,000,000	15.7	100,700	287.3
Domtar Inc.	2,568,000	10.4	161,000[2]	11.0
Donohue Inc.	510,100	7.3	44,200	80.4
Great Lakes Forest Products Ltd.	752,221	18.0	96,185	220.1
MacMillan Bloedel Ltd.	3,134,500	24.8	280,600[2]	57.4
Noranda Forest Inc.	4,246,500	19.2	203,200[2]	97.9
Repap Enterprises Corp. Inc.	927,000	45.9	62,500[2]	380.8
Rolland Inc.	387,700	12.5	4,910	−33.3
Scott Paper Ltd.	288,396	10.1	14,514	12.3
Weldwood of Canada Ltd.	741,035	12.5	47,592	58.4
West Fraser Timber	411,700	7.3	47,200	17.4
Total	**$23,388,784**	**16.8%**	**$1,679,749**	**94.3%**

1. Income after taxes, from continuing operations, excluding the most significant nonrecurring items in both years.
2. **Cascades:** 1987 earnings include extraordinary credit of C$12.6 million from sale of Cascades SA shares and tax credits. 1986 includes credit of $10.3 million from stock issue and tax credit. **Consolidated-Bathurst:** 1987 earnings included a $32.9-million credit from sale of investment in Diamond-Bathurst Inc. and of permanently closed plants in Munich, Fed. Rep. Germany, and Burnaby, B.C. This was offset by charge from writedown on sale of investment in Sulbath Exploration Ltd. 1986 earnings included $54.2-million charge from writeoff of oil and gas investments. 1987 quarter included an extraordinary credit of C$4.1 million from the sale of a glass container plant of Domglas. **Domtar:** 1986 earnings include an $8-million credit from use of prior years' tax losses in the U.S. and sale of businesses. **MacMillan Bloedel:** 1986 earnings included an extraordinary gain on sale of an investment of $45 million. **Noranda Forest:** 1986 includes a $22.5-million pretax gain on sale of shares. **Repap Enterprises:** 1987 includes a $5.8-million credit.

FOCUS ON CAPITAL SPENDING SHIFTS BACK TO EXPANSION OF CAPACITY

High prices and record earnings have encouraged both U.S. and Canadian mills to hurry up their expansion programs

By CARL ESPE, News Editor

Capital spending for papermaking equipment will get a boost over the next several years from a big increase in capacity expansion plans, according to a recent survey by *Pulp & Paper Project Report*, *P&P*'s monthly newsletter on North American expansion and modernization plans.

Thanks to record profits and strong demand, papermakers revised their growth plans sharply upward last year. Over the 1988-90 period, paper and paperboard manufacturers plan to add 6.1 million tpy of new capacity, according to the American Paper Institute. That translates into an average annual growth rate of 2.5%, about 9% higher than average and the highest rate in over 20 years.

Kraft paperboard, free-sheet papers, and newsprint are largely responsible for the pickup in capacity expansion plans. Newsprint, in particular, will rebound sharply in 1990 after eight years in the doldrums. Linerboard will also rebound to historic levels, while a new natural kraft boxboard mill under construction by Mead Corp. will add another 20% to kraft paperboard growth.

To carry out their ambitious expansion plans, companies in both the U.S. and Canada plan record capital spending. On both sides of the border, record earnings and foreign money attracted by weak domestic currencies will help fund strong growth in spending.

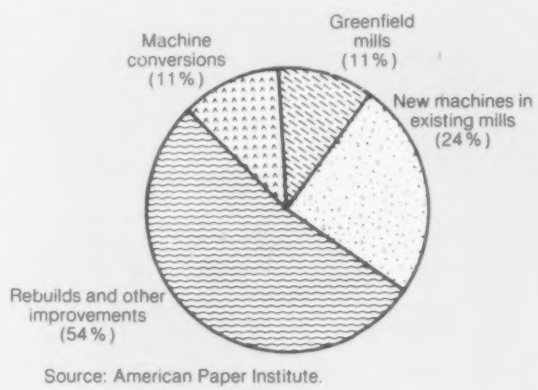
In a *Project Report* survey conducted last November, U.S. pulp and paper companies reported plans to spend $8.04 billion on mill projects in the 1987-92 period, about 19% more than previously planned. In Canada, outlays for the same period are expected to total C$6.67 billion, an increase of 48% over 1986 plans. Longer-range investment plans for the 1990-92 period account for about 24% of these expenditures in both countries.

PAPER MACHINE SPENDING. Reflecting the new emphasis on capacity expansion, spending for new paper machines and improvements to existing machines will account for about $3.5 billion of planned expenditures in the U.S. and C$3.0 billion in Canada. That amounts to about 45% in both cases. The balance between new machines and machine rebuilds is fairly close in the U.S., with 25% earmarked for new paper machine installations and 19% for improvements to existing units. In Canada, however, new machines will capture 33% of planned outlays vs only 13% for machine modifications.

Paper machine upgrades have had a major role in the industry's modernization efforts since the current economic expansion began in 1982, but most of the activity has been in cost cutting, product improvement, and grade realignment. New expansion plans based around rebuild projects have reversed this trend, however, and machine upgrade projects will play an important role in the capacity buildup planned for the next several years.

Rebuilds will contribute the most to new capacity in the paperboard sector, where few new paper machines are currently scheduled. According to API, 14 expansions in the 50,000-plus-tpy range are planned for linerboard machines during the 1987-89 period, and another 20 expansion projects are planned for recycled paperboard. Until recently, only one new linerboard machine installation was planned: Gaylord Container Corp.'s 350,000-tpy machine to be installed at Bogalusa, La., by 1989. Last month, however, Union Camp Corp. an-

FIGURE 1: **Sources of U.S. capacity growth, 1985-1990.**



Source: American Paper Institute.

nounced plans to build a new 460,000-tpy linerboard machine at Savannah, Ga., for startup in 1991.

Net improvements to existing paper machines will account for 78% of U.S. paper and paperboard expansion in 1988, according to API data, up from only 66% in 1987. In contrast, rebuilds and other improvements added only 24% of new capacity in 1986 and 31% in 1985. Net improvements will contribute 63% of new capacity in 1989 before dropping to 40% in 1990, when a number of new paper machines will come online.

PROPOSED PROJECTS. The past several months have seen a steady stream of new project announcements and proposals, with several linked to investments by overseas interests. Daishowa of Japan recently announced a feasibility study for the addition of two new paper machines at its newly acquired uncoated groundwood paper mill in Port Angeles, Wash. Daishowa purchased the mill early this year from James River Corp. for $75 million. If approved, one machine would manufacture newsprint and the other directory papers. Also in the U.S., Pratt Holdings of Australia is studying an investment of about $170 million in its Macon Kraft Inc. kraft linerboard mill in Macon, Ga. Pratt purchased the former Georgia Kraft Co. mill last year. On a somewhat smaller scale, businessman Hwa-Jin Yu of Rep. Korea has signed a letter of intent to build a $41-million recycled paper mill in St. Joseph, Mo.

In Canada, Canfor Corp. and Oji Paper of Japan announced plans to form a new company, Howe Sound Pulp & Paper Co. Ltd., to purchase and expand Canfor's Port Mellon, B.C., mill. Plans call for a new newsprint mill to be built at a cost of C$355 million for startup in 1991. Normick Perron Inc. and Forex Inc., two Quebec-based forest products companies, recently announced a proposal for a new 225,000-metric-tpy newsprint mill to be built in Val d'Or, Que. The deal is contingent on government financial assistance, however.

Kenaf International and CIP Inc. are still pursuing plans for a kenaf-based newsprint mill to be located in south Texas, the two companies reported last month. Plans now call for a 215,000-metric-tpy facility. ■

TABLE 1: **New paper machines in North America.**

Company	Mill	000 tpy	Grade	Startup date
U.S.				
Fort Howard	Rincon, Ga.	250	Tissue	1987
Lake Superior Paper	Duluth, Minn.	230[2]	Uncoated groundwood	1987
Fort Howard	Rincon, Ga.	250	Tissue	1988
Georgia-Pacific	Port Hudson, La.	290	Uncoated free-sheet	1988
James River	Wauna, Ore.	70	Tissue	1988
Midtec Paper	Kimberly, Wis.	210[1]	Coated free-sheet	1988
Potlatch	Cloquet, Minn.	n.a.[1]	Coated free-sheet	1988
Blandin Paper	Grand Rapids, Minn.	200	Coated groundwood	1989
Fort Howard	Rincon, Ga.	n.a.	Tissue	1989
Gaylord Container	Bogalusa, La.	350	Linerboard	1989
International Paper	U.S. South	200[1]	Uncoated free-sheet	1989
Newsprint South	Grenada, Miss.	224[2]	Newsprint	1989
Ponderay Newsprint	Usk, Wash.	175[2]	Newsprint	1989
Champion International	Quinnesec, Mich.	260	Coated free-sheet	1990
Kimberly-Clark	Jenks, Okla.	68[2]	Tissue	1990
Southeast Paper Manufacturing	Dublin, Ga.	230	Newsprint	1990
Willamette Industries	Bennetsville, S.C.	200[2]	Uncoated free-sheet	1990
Mead	Mahrt, Ala.	350	Coated kraft board	1991
Union Camp	Savannah, Ga.	460[1]	Linerboard	1991
Chesapeake	Menasha, Wis.	80	Tissue	n.a.
Fort Howard	Green Bay, Wis.	n.a.	Tissue	n.a.
Kimberly-Clark	Whiting, Wis.	30	Cotton fiber paper	n.a.
Canada				
CIP	Gatineau, Que.	175[1]	Newsprint	1987
Domtar	Windsor, Que.	175	Uncoated free-sheet	1987
Donohue	Clermont, Que.	180[1]	Newsprint	1987
Consolidated-Bathurst	Bathurst, N.B.	150[1]	Semichemical medium	1988
St. Marys Paper	Sault Ste. Marie, Ont.	50	Uncoated groundwood	1988
CIP	Gold River, B.C.	225	Newsprint	1989
Domtar	Windsor, Que.	175	Uncoated free-sheet	1989
Finlay Forest	Mackenzie, B.C.	216	Newsprint	1989
Great Lakes Forest	Dryden, Ont.	175	Uncoated free-sheet	1989
Weyerhaeuser Canada	Prince Albert, Sask.	220	Uncoated free-sheet	1989
Consolidated-Bathurst	Gran[illegible], O[illegible]	183[1]	Uncoated groundwood	1990
Great Lakes Forest	Thund[illegible]	240	Newsprint	1991
Howe Sound	Port Mello[illegible]	200	Newsprint	1991
Tembec	Temiscaming, [illegible]	110	Bleached board	n.a.

1. Replaces some existing capacity.
2. New greenfield mill.

Source: *P & P Project Report*